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1731

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Case Docket No. 7105
Date: July 3, 2003

THE COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

Re: Application of: Fisler et al
Serial No.: 09/840,435
Filed: April 23, 2001
For: LOW TEMERATURE GLASS FOR INSULATION FIBER

Examiner: Michael Colaianni
Unit: 1731

Sir:

Transmitted herewith is/are the following document(s) related to the above-identified application:

[X] Acknowledgment of receipt card.

[ ] Preliminary Amendment.

[X] Response to Office Action dated May 2, 2003.

[ ] Certified copy of Declaration & Power of Attorney (Attachment B).

[ ] Substitute specification and abstract (Attachment C).

[ ] 1 Sheet of Drawings (Attachment D).

Please extend the time for responding to the Office Action ____ ( ) month(s) to _____.

The fee has been calculated as shown below:

[ ] Charge $_____ to Deposit Account No. 10-0625.

[X] Please charge any additional fees or credit overpayment to Deposit Account No. 10-0625.

[X] Two additional copies of this sheet are enclosed.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Diana Kim FISLER et al.

Application No.: 09/840,435

Filed: April 23, 2001

For: LOW TEMPERATURE GLASS FOR INSULATION FIBER

Group Art Unit: 1731

Examiner: Michael Colaianni

Confirmation No.: 4163

RESPONSE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In complete response to the outstanding Official Action issued on May 2, 2003, Applicants offer the following remarks.

Initially, Applicants confirm the oral election made on April 22, 2003 to prosecute the Group I claims 1-23 in the subject application. This election was made without traverse.

Turning now to the rejections of record, the Examiner first rejects claims 1-23 under 35 U.S.C. § 103 as being unpatentable over Ikeda et al. (U.S. Patent No. 4,367,012). For the following reasons, however, the Examiner's rejection is most respectfully traversed by Applicants.

The glass composition of Ikeda is related to a cover glass of sodium zinc alumino borosilicate. A very broad compositional range is disclosed in Ikeda et al. It is submitted by Applicants, however, that even though there is some overlap in the components of the broad composition disclosed in Ikeda et al., no *prima facie* case of obviousness has in fact been established. Indeed, one of ordinary skill in the art reading Ikeda et al. would in no manner be

directed to the practice of Applicants claimed invention, but directed away. The following are just several of the many reasons.

First, Ikeda et al. allows zirconia (ZrO_2). It is an optional component in the glass of Ikeda et al., as it can be present in a range of from 0-7 weight percent. However, it definitely is considered as a possible component and exemplified as such. A number of the examples in Table 1 contain zirconia, in amounts much greater than that of a natural, unavoidable impurity. Thus, one of ordinary skill in the art reading Ikeda et al. would consider zirconia in the composition.

The claims of the present invention recite composition "consisting essentially of". This term is well known, and is further defined on page 18 of the present specification. On page 18, line 15, several components are noted which are avoided by the term "consisting essentially of" as altering the nature of the composition. Among the components listed is zirconia. Thus, one of ordinary skill in the art reading Ikeda et al., and noting the examples where zirconia can in fact be present in the composition, would not be directed to the practice of Applicants' claimed invention which excludes zirconia.

Furthermore, there is no direction in Ikeda et al. to select the various components of the glass compositions within the broad disclosure of ranges disclosed so as to practice Applicants' claimed invention. In fact, none of the examples provided in Ikeda et al. fall within the presently claimed invention. Most of the specific examples provided in Table 1 contain far too much silica, or far too little alumina. The four examples which do contain appropriate amounts of silica and alumina, are examples 19, 20, 21 and 22 in Table 1 of Ikeda et al. However, these particular examples contain far too much B_2O_3, and all contain far too little R_2O. Thus, the skilled artisan reviewing Ikeda et al., and in particular being directed by the specific examples provided, would in no manner be directed to Applicants' claimed invention. As shown by the examples in Table 1, when an appropriate amount of silica and alumina are used, other

components of the composition, such as the B_2O_3 and the R_2O components, are far different from that of the presently claimed invention.

The same is true for the various examples in Tables 2, 3 and 4 in Ikeda et al. The amount of silica is generally far too much, or the amount of alumina is far too little. Often, the results are too much B_2O_3, or far too little R_2O. The compositions also generally contain expensive oxides, which as disclosed on page 18 of the present specification are excluded by the term "consisting essentially of", except as unavoidable impurities. The amounts of such oxides in the examples are all far greater than that of "unavoidable impurities".

With such great differences in the various examples of Ikeda et al. as compared to the presently claimed invention, certainly the skilled artisan reviewing Ikeda et al. would in no manner be directed the presently claimed invention.

Furthermore, an important requirement of the presently claimed invention is that the Final Aged Tensile value would be at least 3000, this value being at least 3000 in combination with the specific composition. Nowhere in Ikeda et al. is a Final Aged Tensile value discussed, or any motivation provided to the skilled artisan to so select a glass composition such that the final age tensile value will be at least 3000. In fact, for the reasons discussed above, there is simply no motivation whatsoever in Ikeda et al. for the skilled artisan to select specific components in amounts such that the composition of the claimed invention is even achieved, as is evident upon a review of the specific examples in Ikeda et al.

Accordingly, favorable reconsideration and withdrawal of the Examiner's rejection of the claims of record over Ikeda et al. are respectfully requested.

Claims 1-21 presently stand rejected as well under 35 U.S.C. § 103(a) as being unpatentable over De Meringo et al. (WO99/57073, equivalent to U.S. Patent No. 6,313,050). For the following reasons, however, the Examiner's rejection is most respectfully traversed by Applicants.

The De Meringo et al. patent relates to a mineral wool composition. A disclosure of broad ranges of various components of the glass composition is included in the description. There is some overlap in the ranges, due to the breadth. However, Applicants submit that one of ordinary skill in the art reviewing De Meringo et al. in its entirety, would in no manner be directed to Applicants' claimed invention.

First of all, nowhere in De Meringo et al. is there any recognition of the important feature of a final age tensile value, and that the selection of particular components of the glass composition and their amounts must be such as to meet a value of at least 3000. Without such a recognition of this value, the skilled artisan can in no manner be guided to make the correct selection in order to practice Applicants' claimed invention.

Moreover, when one of ordinary skill in the art reviews the various examples in Tables 1 and 2 of De Meringo et al., one would actually be directed away from any possibility of practicing Applicants' claimed invention. This is due to the fact that none of the examples even provide one composition which would fall within the compositional ranges of Applicants claimed invention. Most of the examples in Tables 1 and 2 of De Meringo et al. have far too much alumina. The only examples which do not are Examples 5 and 9, but the compositions of Examples 5 and 9 of De Meringo et al. have too much CaO plus MgO, far too little Na_2O plus K_2O, and far too little B_2O_3. Thus, when one follows the teachings of De Meringo et al. in its entirely, when an appropriate amount of alumina is chose, too much and too little of several other important components are to be included in the composition. Thus, before one could even attempt to select glass components and their amounts to satisfy the final age tensile value required by the presently claimed invention, one would be directed away by De Meringo et al. from even selecting components within the required ranges to meet such a value.

Accordingly, it is respectfully submitted that De Meringo et al. does not in any manner suggest Applicants' claimed invention, and in fact directs one away from the possibility of

practicing Applicants claimed invention when all of its teachings are considered. Favorable reconsideration and withdrawal of the Examiner's rejection of claims 1-21 over De Meringo et al. are therefore respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited.

Respectfully submitted,

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Date: July 3, 2003

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